

W5YI

Nation's Oldest Ham Radio Newsletter

REPORT

Up to the minute news from the world of amateur radio, personal computing and emerging electronics. While no guarantee is made, information is from sources we believe to be reliable. May be reproduced providing credit is given to The W5YI Report.

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September 1, 1996

New RF Safety Guidelines to Impact Ham Radio!

"We find it to be the duty of the licensee of an amateur station to prevent the station from transmitting from any place where the operation of the station could cause human exposure to levels of RF radiation that are in excess of the limits we are adopting." FCC in ET Docket 93-62.

As mentioned in our last issue, the FCC released on August 1st new *"Guidelines for Evaluating the Environmental Effects of Radiofrequency Radiation."* The proceeding was long (more than three years) and the Order, lengthy (100 plus pages) ...much of it very technical.

Q. Just what did the FCC do concerning RF Safety? And Why?

A. Acting at the express direction of the Congress, the Commission has adopted new guidelines and methods for evaluating the environmental effects of radiofrequency (RF) radiation from FCC-regulated transmitters - including amateur radio.

New *Maximum Permissible Exposure (MPE)* limits for electric and magnetic field strength and power density for transmitters operating at frequencies from 300 kHz to 100 GHz were adopted.

These MPE limits are generally based on the guidelines contained in the ANSI/IEEE C95.1-1992 RF safety standard developed by the *Institute of Electrical and Electronic Engineers, Inc. (IEEE)* and adopted by the *American National Standards Institute (ANSI)*.

The FCC believes that the new guidelines will better protect the public and workers from expo-

sure to potentially harmful RF fields. The FCC especially took the comments of the U.S. Environmental Protection Agency (EPA), the Food and Drug Administration (FDA) and other federal health and safety agencies into consideration to develop what they believe to be a consensus view of the federal agencies responsible for matters relating to the public safety and health.

The *Telecommunications Act of 1996*, which was enacted on February 8, 1996, required that: "Within 180 days after the enactment of this Act, the Commission shall complete action in ET Docket 93-62 to prescribe and make effective rules regarding the environmental effects of radio frequency emissions." The new rules were released on the 175th day.

Q. How are the new 1992 ANSI RF standards different from the 1982 ANSI guidelines they replace?

A. In 1985, the Commission adopted a 1982 ANSI standard for use in evaluating the effects of RF radiation on the environment, noting that the ANSI standard was widely accepted and was technically and scientifically supportable.

Since then the FCC has used this standard as its processing guideline for determining the

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potential environmental impact of RF emissions. Applicants for certain radio facilities had to prepare an Environmental Assessment (EA) if the transmitter could expose the general public or workers to levels of RF radiation that are in excess of the 1982 ANSI guidelines.

Many low power and intermittent RF transmitters (including amateur radio stations) were "categorically excluded" from routine evaluation for RF radiation exposure based on data indicating that they would not normally cause exposures in excess of the guidelines.

In 1992, ANSI adopted a new standard for RF exposure, designated ANSI/IEEE C95.1-1992 to replace its 1982 standard. The 1992 ANSI/IEEE standard is generally more restrictive in the amount of environmental RF exposure permitted. It also extends the frequency range under consideration to cover frequencies from 3 kHz to 300 GHz.

The 1992 ANSI/IEEE standard specifies two tiers of exposure criteria, one tier for "controlled environments" (usually involving workers) and another, more stringent tier, for "uncontrolled environments" (usually involving the general public). Since they are usually in residential environments, Amateur radio installations can be both in a "controlled" and "uncontrolled environment."

The 1982 ANSI standard specified only one set of exposure limits, regardless of whether the individual exposed was a worker or a member of the general public. The 1992 ANSI/IEEE standard also, for the first time, includes specific restrictions on currents induced in the human body by RF fields.

The 1992 ANSI/IEEE standard is also generally more restrictive in the evaluation of low-power devices, such as hand-held radios and cellular telephones, than the 1982 standard which permitted exclusion from compliance with the MPE limits if the input power of the radiating device was 7 watts or less.

The 1992 guidelines are five times more strict for devices operating in "uncontrolled" environments. The 1992 ANSI/IEEE standard also includes all hand-held radios where the antenna is located close to body of the user.

Q. What is the difference between a "Controlled" and "Uncontrolled" RF environment?

A. The 1992 ANSI/IEEE guidelines specify two sets of exposure limits based on the "environment" in which the exposure takes place. These environments are classified as either "controlled" or "uncontrolled."

Controlled environments are defined as locations where "there is exposure that may be incurred by persons who are aware of the potential for exposure..."

Uncontrolled environments are defined as "locations where there is the exposure of individuals who have no knowledge or control of their exposure. The expo-

sure may occur in living quarters or workplaces where there are no expectations that the exposure levels may exceed permitted levels."

Professor Wayne Overbeck (N6NB), filing comments as an individual, believes that "...few amateur operators are aware of the electromagnetic radiation levels present near their own amateur stations and that rather than being excluded from our requirements, the amateur service should be subject to the standard for 'uncontrolled environments' through language added to Part 97.

"Professor Overbeck points out that vast numbers of amateurs are neither members of the ARRL nor subscribers to any amateur service magazines and consequently these educational sources are not sufficient to ensure adherence to our guidelines.

"Because actual measurements would be financially prohibitive for most amateur operators, Professor Overbeck recommends that we promulgate a rule requiring amateur operators to adopt operating and antenna-placement practices calculated to meet the exposure limits and that they be required to certify on their application forms that they have read and will adhere to the guidelines for antenna placement.

"Finally, Professor Overbeck suggests that we promulgate an amateur service version of OST Bulletin No. 65 that would include charts and tables showing required separation distances between antennas and inhabited areas for various power levels. He also suggests that amateurs be tested on this topic as part of operator license examinations."

The American Radio Relay League, Inc. (ARRL) opposed use of the ANSI/IEEE definitions, arguing that under these definitions amateur operations would unjustly be categorized as operating in an uncontrolled environment. It suggests that there is no reason to require amateurs to meet the high safety factor below the threshold for adverse health effects that is the basis for the uncontrolled MPE limits. The ARRL indicates that the controlled environment MPE limits 'should be safe for all.'

The FCC agreed with Overbeck and disagreed with the ARRL stating, "occupational/controlled" exposure, as used by the Commission, will apply to situations in which persons are exposed as a consequence of their employment and in which those persons who are exposed have been made fully aware of the potential for exposure and can exercise control over their exposure. We will apply the occupational/controlled exposure limits to amateur radio operators and members of their immediate household."

"General population/uncontrolled" exposure, as used by the Commission, will apply to situations in which the general public may be exposed or in which persons

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who are exposed as a consequence of their employment may not be made fully aware of the potential for exposure or can not exercise control over their exposure. Therefore, members of the general public always fall under this category when exposure is not employment-related, as in the case of residents in an area near a broadcast tower."

Q. What about low-power radio transceivers?

A. The 1992 ANSI/IEEE guidelines permit low-power devices designed to be used in the immediate vicinity of the body, such as portable and hand-held radios and telephones, to be excluded from compliance with the prescribed limits for field strength and power density provided that such devices comply with certain criteria or that the radiated power of the device is below a certain level. "Low-power" devices include mobile transmitters such as automobile and marine radio transceivers, and hand-held portable devices such as cellular telephones and "walkie-talkie" type radios.

Based on the concerns expressed by the FDA, the Commission said it was not adopting at this time low-power device exclusions based on radiated power, as contained in the 1992 ANSI/IEEE guidelines. "Although our exposure criteria will apply to portable and mobile devices in general, at this time routine evaluation for compliance will not be required of devices such as 'push-to-talk' portable and mobile radios used in taxicabs, business, police and fire vehicles and used by amateur radio operators.

"These transmitting devices will be excluded from routine evaluation because their duty factors (percentage of time during use when the device is transmitting) are generally low and, for mobile radios, because the antennas are normally mounted on the body of a vehicle which provide some shielding and separation from the user. This significantly reduces the likelihood of human exposure in excess of the RF safety guidelines due to emissions from these transmitters."

Q. Will amateur radio continue to be categorically excluded from routine evaluation for RF radiation exposure?

A. Several parties addressed continuation of the categorical exclusion for the amateur radio service. The ARRL and its Bioeffects Committee support "prudent avoidance" and state that most of the amateur radio users do not possess the requisite equipment, technical skills, and/or financial resources to conduct an environmental analysis.

"Both the ARRL and the ARRL Bio-Effects Committee submit that we could raise an amateur radio applicant's awareness concerning RF energy by placing relevant questions on the amateur license examination.

On the other hand, Dr. Wayne Overbeck and the Amateur Radio Health Group comment that it would be inappropriate for this Commission to exempt the amateur service automatically from all requirements for compliance with radiation safety guidelines.

"Overbeck and the Amateur Radio Health Group state that education is not enough and suggest that we create a version of OST Bulletin No. 65 for radio amateur operations. They state this bulletin could supplement Part 97 rules and be used by amateurs to certify compliance with the RF exposure safety guidelines.

"The ARRL Bio-Effects Committee claims that amateur operators normally would be exempted from environmental review requirements, since most engage in operations that would not cause the ANSI/IEEE guidelines to be exceeded. However, it notes, a 100 watt VHF 'vehicular installation' may produce higher fields inside the vehicle than the ANSI/IEEE standard would allow.

"Furthermore, hand-held transceivers, facilities employing indoor antennas, and facilities engaging in specialized activities such as "moonbounce" communication, may produce significant localized fields near the antenna."

The FCC said they "...continue to believe that it is desirable and appropriate to categorically exclude from routine evaluation those transmitting facilities that offer little or no potential for exposure in excess of the specified guidelines. Requiring routine environmental evaluation of such facilities would place an unnecessary burden on licensees. However, we believe that some alteration of our previous categorical exclusion policy is necessary.

"Several commenters have submitted technical documentation indicating the power levels and distances at which transmitting sources in various services will comply with the exposure guidelines. Our staff has evaluated this material and has performed analyses of its own.

"Based on these studies, we now believe that in certain cases we should no longer exempt entire services from demonstrating compliance. Examples include high-power paging and cellular telephone sites on relatively short towers or rooftops where access may not be restricted. There is also evidence that certain amateur radio facilities have the potential for exceeding our new limits.

"Amateur stations can transmit with up to 1500 watts peak envelope power on frequencies in specified bands from 1,800 kHz to over 300 GHz. Certain of the emission types permitted have high duty cycles, for example frequency or phase shifted digital signals. Amateur stations are not subject generally to restrictions on antenna gain, antenna placement and other relevant exposure variables. Even though situations where exposures are excessive may be relatively uncommon

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and even though most amateur stations transmit for short periods of time at power levels considerably lower than the maximum allowed, the possibility of human exposure to RF radiation in excess of the guidelines cannot be disregarded. Therefore, a blanket exemption for all amateur stations does not appear to be justified, and we will apply our new guidelines to amateur stations. We will rely upon amateur licensees to demonstrate their knowledge of our guidelines through examinations. We will also rely on amateur licensees to evaluate their own stations if they transmit using more than 50 watts of output power. Applicants for new licenses and renewals also will be required to demonstrate that they have read and that they understand our applicable rules regarding RF exposure.

Q. Exactly what are the new RF Safety Guidelines?

A. The short answer is that we are not really sure since only a highly technical version has been published. The FCC's Office of Science and Technology said it will follow up later with a less technical explanation geared to ham radio operators.

The FCC said it was not a "health and safety" agency and deferred to the judgement of the Federal experts...especially the EPA. For the first time, routine environmental evaluation for RF exposure will be required for amateur radio transmitters radiating more than 50 watts PEP. The new Part 97 Rules which went into effect August 6th require:

- a.) an RF radiation evaluation when the transmitter power exceeds 50 watts peak envelope power. If the routine evaluation indicates that the RF radiation could be in excess of the limits, the licensee must take action to prevent such an occurrence. (No paperwork need be submitted) "Further information on evaluating compliance with these limits can be found in the FCC's OST/OET Bulletin Number 65, "Evaluation Compliance with FCC-Specified Guidelines for Human Exposure to Radiofrequency Radiation." This bulletin has not yet been released.
- b.) A tenth new license examination topic entitled "Radiofrequency environmental safety practices at an amateur station" has been added to the syllabus. Element 2 (Novice theory), Element 3A (Technician theory) and 3B (General theory) each gain 5 new examination questions.

This means that eventually there will be a pool of about 150 RF safety-oriented multiple choice questions since Rule §97.523 requires that "Each question pool [but not necessarily each topic] must contain at least 10 times the number of questions required for a single examination." The VECs Question Pool Committee, however, historically has applied the ten times Rule to each of the exam topics as well. Element 2 examinations will contain 35 questions (instead of 30) and 3(A) and 3(B) exams: 30

questions each (instead of 25.) Pass rates are 26, 22 and 22 questions answered correctly.

The FCC said it believed "...that the rules we are adopting should provide a reasonable transition period for applicants and stations to come into compliance with the new requirements. After considering the comments and the impact of these new requirements, we conclude that the new RF guidelines will apply to station applications filed after January 1, 1997... We recognize that this relatively short transition period may cause some difficulties for certain applicants. Accordingly, for a period of one year from the date this Order is adopted, we will allow our Bureaus to address under delegated authority the specific needs of individual parties that make a good cause showing that they require additional time to meet the new RF guidelines. Such relief could come through waivers of our rules or through other similar actions."

For what it is worth, here are the new exposure limits:

§ 1.1310 Radiofrequency radiation exposure limits. Limits for Maximum Permissible Exposure (MPE)

(A) Limits for Occupational/Controlled Exposure -

"...persons are fully aware of the potential for exposure and can exercise control over their exposure..."

Frequency Range (MHZ)	Electric Field Strength (V/m)	Magnetic Field Strength (A/m)	Power Density (mW/cm ²)	Averaging Time (minutes)
0.3-3.0	614	1.63	(100)*	6
3.0-30	1842/f	4.89/f	(900/f ²)*	6
30-300	61.4	0.163	1.0	6
300-1500	--	--	f/300	6
1500-100,000	--	--	5	6

(B) Limits for General Population/Uncontrolled Exposure

"... in situations in which the general public may be exposed..."

Frequency Range (MHZ)	Electric Field Strength (V/m)	Magnetic Field Strength (A/m)	Power Density (mW/cm ²)	Averaging Time (minutes)
0.3-1.34	614	1.63	(100)*	30
1.34-30	824/f	2.19/f	(180/f ²)*	30
30-300	27.5	0.073	0.2	30
300-1500	--	--	f/1500	30
1500-100,000	--	--	1.0	30

f = frequency in MHZ, * = Plane-wave equivalent power density

"The Commission will revise OST Bulletin No. 65 to provide guidance for determining compliance with FCC-specified RF limits. This should be of particular assistance to small businesses [and ham operators!] since it will provide straight forward information that should allow a quick understanding of the requirements and a quick assessment of the potential for compliance problems without the need for an expensive consultant or measurement."

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ARRL ASKS FOR EXTENSION OF EFFECTIVE DATE OF NEW RF SAFETY QUESTION IMPLEMENTATION

On August 12th, the American Radio Relay League filed an "Emergency Motion for Extension of Effective Date of Rules." They request "a partial temporary stay" of the new RF Guidelines Order that requires additional license examination questions on RF exposure issues.

"Revision of [the] question pools is done periodically, according to an established and published schedule, by the committee of representatives of VECs. This is done so that the examinations can be updated periodically, and so that Volunteer Examiners (VEs) are aware of the revised pools and implement them at the proper time. Those VECs which prepare examinations for the VEs to administer do so in quantity, at significant expense. Furthermore, publishers who prepare examination preparation material base their publications on the information in the question pools. Changes in the pools change the publications. The published, strictly adhered-to schedules for examination question pool revisions create a necessary predictability in the VE program.

"The ...effective [date of the Report and Order] is ...August 7 ...making that the effective date of each of the new or amended rules. Among the amended rules ...is Section §97.503(b) which governs examination administration in the Amateur Service. That subsection, as amended, requires that ...on or after August 7, five additional questions must be administered to each candidate for each of the three examination elements. [Element 2, 3(A) and 3(B).]

"Related to this is Section §97.507(b) of the rules, which requires that each examination administration to an amateur candidate must utilize questions taken from the applicable question pool. Also Section §97.523 of the rules requires that each question pool contain at least ten times the number of questions for a single examination element.

"Therefore, based on the rules, there must be, as of August 7, 1996, 350 questions in the Element 2 question pool, and 300 questions in each of the Element 3(A) and 3(B) question pools. The revised Section §97.503(C)(1) ...requires at least five questions in each of those three question pools must be related to "radiofrequency environmental safety practices at an amateur station."

"The practical problem with this is not the number of questions in each question pool related to radiofrequency environmental safety practices at an amateur station. The existing pools for examination elements 2, 3(A) and 3(B) each currently contain at least that many questions on that subject. Therefore, the Commission's intent in revising the rules is already being addressed in existing examinations.

"The problem, instead, is that the examinations now in circulation do not contain the requisite number of questions, and the present Element 3(A) and 3(B) question pools slated for revision in the near term, do not contain at least 300 questions (ten times the number of questions which must be administered on each examination element.) The practical effects of the immediate effective date of this one rule are as follows:

- The public has been made aware, and expects, that the Element 2 and 3(A) examinations (not to be confused with the question pools) will be changing shortly, but they don't expect the implementation of the new pools until July 1, 1997.

- Work on revising the Element 2 and 3(A) pools has been underway for over a year, and is scheduled for completion on December 1, 1996 — at which time the pools are placed into public domain for use in preparation for future exams by instructors, volunteer examiners, publishers (who will need several months to prepare study guides) and students — all to culminate with the new pools being implemented in the exam room on July 1, 1997.

- The public has been made aware, and expects that the Element 3(B) question pool will be changing, but not until July 1, 1998. Work by the question pool committee of the VECs is scheduled to begin on the Element 3(B) question pool once the Element 2 and 3(A) pools are released on December 1, 1996.

- The ARRL/VEC has approximately 24,000 examiners, many or more of whom have examination supplies on hand. Each of those examiners must be notified of the change in the question pools, and of the number of questions to be asked on the exams. Notification via newsletter mailing takes 2-3 days preparation and proofing, 2-3 weeks duplication time, 2-3 days to get them into the mail and 7-20 days mailing time bulk rate for 24,000 VEs. The cost is substantial.

- Tens of thousands of dollars worth of test booklets must be replaced. In the case of the League, there are more than 775 field-stocked teams who have more than 180 test booklets each that would have to be replaced. These booklet preparation and duplication takes 3-4 weeks, packaging and mailing takes 2-3 days and mailing time is 2-5 days. The cost is substantial.

- The League has 2,600 examination administration software user VEs who must receive an update to their software before their software will create a valid test that will include the additional five questions for the Novice, Technician and General (Element 2, 3(A) and 3(B)) pools. Software update and duplication takes ten days, packaging and mailing takes 2-3 days and mailing time is 2-5 days. The cost is substantial.

- As noted above, the question pools as they presently exist already include the requisite five RF-safety questions for the three license classes. All VECs are therefore meeting the intent of the Order. However, adding five questions to each examination requires significant time, effort and logistics to do the job right. Rushing to create new examination questions is unquestionably a disservice to future amateur licensees.

- The vast majority of the individuals doing examination preparation and administration, at all levels, are volunteers. They are not paid, nor motivated, to make changes in the examinations and question pools without any preparation time at all. In all fairness to these volunteers, a reasonable time must be afforded them to prepare for introduction of these new guidelines into the license examination process. What is required is to implement these important changes in a competent and complete manner for the benefit of the public. This takes more than the zero preparation time that the Commission has afforded, with absolutely no advance notice whatsoever.

"The American Radio Relay League, Inc., respectfully requests, good cause having been shown, that the implementation date for the amended Section §97.503(b) of the Commission's rules be extended, with respect to Element 2 and 3(A) examinations to July 1, 1997, and with respect to Element 3(B) examinations, to July 1, 1998."

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ARRL REPLIES TO UNLICENSED 5 GHz OPERATION

On August 14th, the American Radio Relay League submitted its reply comments on the FCC's proposal to permit use of 350 MHz of spectrum at 5.15-5.35 GHz and 5.725-5.875 GHz by a new category of unlicensed equipment, called NII/SUPERNet devices. (ET Docket No. 96-102) These would provide short-range, high-speed wireless digital communications on an unlicensed basis. Indoor wireless networks are often mentioned as an alternative to expensive wired networks.

The amateur service shares a portion of the 5-cm band (5.650-5.925 GHz) band with certain other services (radiolocation and Industrial, Scientific and Medical equipment) on a secondary, non-interference basis. Field-disturbance sensors (such as automatic door openers) and Defense Department tracking/guidance/surveillance radars operate in this band. AMSAT also has amateur satellite downlinks allocated at 5.83-5.85 GHz.

Seeking to protect present and future amateur communications in this band, the League said the "...allocation of 350 MHz is excessive and premature." ARRL contends that the technical capability of wireless LANs is "...unproven", their demand "...unestablished" and the interference potential "...unknown." Furthermore, other bands (such as at 18, 23, 28 and 38 GHz) can be used for these devices for longer-reach community links. ARRL also believes sharing studies by NII/SUPERNet proponents are necessary to protect the present users of the 5 GHz band. The League concludes that the deployment of NII-SUPERNet devices should be limited to short range operation in the 5.15-5.35 GHz band only.

JAPAN LAUNCHES AMATEUR RADIO SATELLITE

The Japan Amateur Radio League announced that a new Amateur Radio satellite JAS-2 developed by JARL was successfully launched at 01:53 (UTC) on August 17, 1996, from Tanegashima Space Center of the National Space Development Agency of Japan (NASDA).

JAS-2 was separated from the H-II launch vehicle No. 4 over the Antarctica and beacon telemetry signals were received at Showa Base at 02:35 (UTC). Satellite tracking and control station of JARL in Sugamo, Tokyo received new bird's beacon at 03:35 (UTC) and confirmed it was successfully deployed in orbit.

JARL named the new satellite "Fuji-3" as a successor of Fuji-2 (FO-20). At the evening path of August 18, 1996 in Japan, JARL activated digital transponder on board and tested packet BBS operation. All of its systems are functioning normal and satellite is open for general use now, however, unannounced shut down may occur during a two to three week testing and attitude control period. Here are the operating frequencies:

Uplink (MHz)	Downlink (MHz)	Mode
145.9 - 146.0	435.9 - 435.8	CW and SSB/Analog

Uplink (MHz)	Downlink (MHz)	Mode
145.85/87/89/91	435.91	1200 bps PSK/Digital
145.87	435.91	9600 bps FM FSK/Digital
N/A	435.91	Digitalker
N/A	435.795	CW telemetry

For further information, please contact "Technical Laboratory; The Japan Amateur Radio League, Inc.; 14-5, Sugamo 1-chome, Toshima-ku; Tokyo 170-73, Japan or e-mail: lab@jarl.or.jp

● **Chod Harris VP2ML/WB2CHO announces the sale of DX Publications** to Paul AE4AP and Nancy KB4RGW Smith. (P. O. Box 2306, Paducah KY 42002-2306, phone 502-898-8863, fax 502-898-8865, e-mail: dxpub@midwest.net) effective Aug. 12, 1996. DX Publications publishes three DX periodicals: The DX Bulletin, The DX Magazine, and The Long Island DX Bulletin. The Smiths will continue the publication of all three.

The DX Bulletin has been published since 1968, when it was called The West Coast DX Bulletin. The DX Magazine was founded by Chod Harris in 1989, and remains the only glossy-paper, English-language magazine devoted entirely to DX. The Long Island DX Bulletin was purchased by DX Publications two years ago. It is the most economical DX newsletter in the US. Chod Harris will continue editing the DX column for CQ Magazine.

AMATEUR STATION VANITY CALL SIGN SYSTEM FILING GATE 2 OPENS SEPTEMBER 23, 1996

Amateur operators who meet the following eligibility standards may request a vanity call sign on or after September 23, 1996. File your request on FCC Form 610-V. Legibility is critical! If the information on your application is not legible, you could experience a delay in processing, lose the opportunity to obtain a requested call sign or even obtain a call sign different from what you want. You must hold an unexpired amateur operator/primary station license grant of the proper operator class, as described below, to request a vanity call sign for your primary station. To request a vanity call sign for a club station, you must also hold an unexpired club station license grant listing you as the license trustee. Refer to the licensee data base to verify that the call sign you are requesting is not already assigned. A call sign is normally assignable two years following license expiration, surrender, revocation, set aside, cancellation, void ab initio, or death of the grantee. See Fact Sheet PR5000 Number 206-V AMATEUR STATION VANITY CALL SIGN SYSTEM. For explanations of Groups A, B, C and D and the geographic Regions, see Fact Sheet PR5000 Number 206-S, AMATEUR STATION SEQUENTIAL CALL SIGN SYSTEM.

NOTE: A separate Public Notice will be released providing guidelines for the implementation of electronic filing procedures for FCC Form 610-V.

REQUEST BY LIST (PRIMARY OR CLUB STATION) - Provide a list of up to 25 call signs in the order of your preference. The first assignable call sign on your list will be assigned to your station. When so requesting for your primary or club station:

- The call sign must have been unassigned for at least two years. If you are an Amateur Extra Class operator, each call sign must be in Group A, B, C or D. (Advanced, General, Technician Plus, Technician, and Novice Class operators are not yet eligible to request by list. Advanced Class operators will be eligible at Gate 3. Others will be eligible at Gate 4.) Each call sign must be one designated for the Region of your mailing address as follows:
- One of the contiguous 48 states - Regions 1 to 10.
- Alaska - Regions 1 to 11.
- American Samoa - Region 1-10, or Region 13 having numeral 8.
- Commonwealth of Northern Mariana Islands - Regions 1 to 10, or Region 13 having numeral 0.
- Guam - Regions 1 to 10, or Region 13 having numeral 2.
- Hawaii - Regions 1 to 10, or Region 13 having numeral 6 or 7.
- Puerto Rico - Region 1-10, or Region 12 having numeral 3 or 4.
- Virgin Islands - Region 1 to 10, or Region 12 having numeral 2.

REQUEST BY FORMER HOLDER (PRIMARY STATION) - Opened May 31, 1996. For your primary station, you may request a call sign that was previously assigned to your primary, secondary, repeater, auxiliary link, control, or space station. When so requesting for your primary station:

- You may request your former call sign even though it has been unassigned for less than two years. The two year requirement does not apply to an otherwise eligible primary station if the call sign was previously assigned to a station of the requestor.
- You do not have to hold a class of operator license required for the Group (A, B, C, or D) for the call sign requested. A call sign request by former holder may be from any Group in the sequential system.
- Your mailing address does not have to be in the Region designated in the sequential system for the call sign requested. A call sign requested by former a holder may be in any Region.

REQUEST BY CLOSE RELATIVE OF FORMER HOLDER NOW DECEASED (PRIMARY STATION) - Opened May 31,

1996. For your primary station, you may request a call sign that was previously assigned to the primary, secondary, repeater, auxiliary link, control, or space station of your now-deceased spouse, child, grandchild, stepchild, parent, grandparent, stepparent, brother, sister, stepbrother, stepsister, aunt, uncle, niece, nephew, or in-law. When so requesting for your primary station:

- You may request the former call sign of a close relative now deceased even though it has been unassigned for less than two years. Upon the death of the holder, a call sign is assignable immediately to an otherwise eligible primary station of a close relative.
- You must be an Amateur Extra Class operator to request a Group A call sign. You must be an Amateur Extra or Advanced Class operator to request a Group B call sign. You must be an Amateur Extra, Advanced, General, Technician Plus, or Technician Class operator to request a Group C call sign. You must be an Amateur Extra, Advanced, General, Technician Plus, Technician or Novice class operator to request a Group D call sign.
- Your mailing address does not have to be in the Region designated in the sequential system for the call sign requested. A call sign requested by a close relative of former holder now deceased may be in any Region.
- You must show your relationship to the deceased person exactly as listed in the instruction, i.e., child, niece or in-law.
- The license grant of the former holder now deceased must have been deleted from the licensee database. That is accomplished by a relative of the deceased submitting a signed request to have the license grant cancelled accompanied by a copy of an obituary or death

certificate. The request for cancellation must be submitted to the FCC, 1270 Fairfield Road, Gettysburg, PA 173257245 prior to filing the application for a vanity call sign.

REQUEST BY FORMER HOLDER (CLUB STATION) - Opened May 31, 1996. For the club station for which you are the license trustee, you may request a call sign that was previously assigned to that station. When so requesting for a club station:

- You may request your club station's former call sign even though it has been unassigned for less than two years. The two year requirement does not apply to an otherwise eligible club station if the call sign was previously assigned to the club station for which the requestor is the license trustee.
- You do not have to hold a class of operator license required for the Group (A, B, C, or D) for the call sign requested. A call sign request by former holder may be from any Group in the sequential system.
- Your mailing address does not have to be in the Region designated in the sequential system for the call sign requested. A call sign requested by a former holder may be in any Region.

REQUEST IN MEMORIAM (CLUB STATION) - Opened July 22, 1996. If you are the license trustee for your club station, you may request in memoriam for your club station the call sign previously shown on the primary, secondary, repeater, auxiliary link, control, or space station license of a deceased person who was a member of the club. When so requesting in memoriam for your club station:

- The club must have held a club station license grant on March 24, 1995, or you must be an Amateur Extra Class operator.
- You may request the call sign even though it has been less than two years following death of the club member. Upon the death of the holder, the call sign is assignable immediately to an otherwise eligible club station.
- You must have in your station records a written statement (do not send to FCC unless requested) from a spouse, child, grandchild, stepchild, parent, grandparent, stepparent, brother, sister, stepbrother, stepsister, aunt, uncle, niece, nephew, or in-law of the deceased confirming the deceased person's association with the club and showing consent of the relative to your request.
- You must be an Amateur Extra Class operator to request a Group A call sign. You must be an Amateur Extra or Advanced Class operator to request a Group B call sign. You must be an Amateur Extra, Advanced, General, Technician Plus, or Technician Class operator to request a Group C or D call sign.
- Your mailing address does not have to be in the Region designated in the sequential system for the call sign requested. A call sign requested in memoriam may be in any Region.
- You must enter the relationship to the deceased person giving consent exactly as listed in the instruction, i.e., child, niece or inlaw.
- The license grant of the former holder now deceased must have been deleted from the licensee database. That is accomplished by a relative of the deceased submitting a signed request to have the license grant cancelled accompanied by a copy of an obituary or death certificate. The request for cancellation must be submitted to the FCC, 1270 Fairfield Road, Gettysburg, PA 17325-7245 prior to filing the application for a vanity call sign.

A \$30.00 fee is required with your FCC Form 610-V application. Payment of fees may be made by check (payable to "FCC"), bank draft, money order or credit card. If paying by credit card, you must also complete and submit FCC Form 159 with your FCC Form 610V. Do not send cash. (NOTE: Both FCC Form 610-V Vanity Call Sign Application and FCC Form 159 Remittance Advice is available from: **W5YI Group, Inc., P.O. Box 565101, Dallas, TX 75356.** Please include large SASE.)

W5YI REPORT

Nation's Oldest Ham Radio Newsletter

Page #8

September 1, 1996

Send your package to: **Federal Communications Commission, Amateur Vanity Call Sign Request, P.O. Box 358924 Pittsburgh, PA 15251-5924**

If you do not qualify under the forementioned eligibility standards, your application will be dismissed. A future public notice will announce Gate 3 which will have expanded eligibility standards. For further information, contact the Consumer Assistance Branch at telephone 1-800-322-1117. *[FCC News Release, Aug. 22, 1996]*

MORE ON THOSE WITHDRAWN VANITY CALL SIGNS

Problem has its roots in the previous Vanity Call Sign System

Arthur H. Feller, KB4Z of Fairfax, VA has written FCC Chairman Reed Hundt protesting the withdrawal of "vanity" call sign W4ART which he received in late June. You will remember that we mentioned in our August 1st W5YI Report that Ohio amateur John R. Sheller KN8Z had applied for K8RZ under Gate 1 of the Vanity Call Sign System.

Gate 1 allows an amateur to reclaim a previously held amateur station call sign. The FCC set aside (canceled) Sheller's K8RZ, however, when an anonymous letter tipped off the FCC's Inspector General that Sheller had originally obtained K8RZ some twenty years ago under "other than normal" circumstances. (Sheller actually slipped a hundred dollar bill to the FCC's head licensing official by mailing it to his personal post office box.) That set off a very big ...and very far reaching scandal at the FCC.

And when the FCC looked into other vanity call signs that they had recently issued, they found a couple of others (W4ART and W3RO - both former FCC employees) that also had been originally received their call sign through "favoritism."

Since most of our readers were licensed after this mid-1970's incident, we thought we would recap actually what happened. Let's start with the...

History of amateur radio call signs

In 1938, the Commission published its first Rule applicable to the assignment of Amateur radio station call signs. It provided that "Amateur station calls will be assigned in regular order and special requests will not be considered." Exceptions were provided for the assignment of a specific call sign to the latest holder or a previous holder of the call sign, or to an Amateur organization in memoriam to a deceased member who had formerly held the call sign, or to a station connected with an event of general public interest.

In 1946, the language of this Rule was changed to provide that "...the calls of amateur stations will be assigned systematically by the Commission." In addition to the previous exceptions, the Rule was modified to permit the assignment of one non-specific two letter call sign

to a previous holder of a two letter call sign.

No substantive changes occurred in this Rule until 1967, when a provision was added to permit the assignment of a non-specific two letter call sign to an Amateur Extra class licensee who had been licensed for 25 years or more. (Applicants could not select a specific call sign unless they had formerly held the requested call sign.)

In 1968, the FCC established new Part 97 Rules entitled *"Policies and procedures applicable to assignment of call signs."* This Rule provided that a basic station would be assigned the "...same type" of call sign upon modifying to a different call sign area, a holder of a "1x3" would receive another "1x3", etc. *[Editor's Note: We were first licensed as W1NTK in the early 1950's ...and later received W5UTT under this provision.]* The Rule also provided that "...licensees would not be assigned specific call signs of their choice or counterpart call signs (call signs with identical suffix letters.)" "One-by-two" and "one-by-three" were also deemed to be "preferred call signs."

On July 1, 1976, the Rules were modified to provide that "...licensees would not be assigned specific call signs or counterpart call signs...", except in accordance with a schedule for the selection of specific "1x2" call signs by certain Extra Class licensees with varying degrees of tenure. *[We received W5YI under this Rule.]* Any Extra class licensee who had been a licensed Amateur for 25 years or more could select (and list in order of preference) specific "1x2" call signs.

Effective January 1, 1977, anyone who had held an Amateur Extra class license since prior to July 2, 1974, could select a "1x2" call sign. And effective April 1, 1977 Extra class amateurs licensed prior to July 1, 1976, became eligible. And finally, on July 1, 1977, any Amateur Extra class licensee could select a prized "1x2" call sign.

This phase-in schedule expanded upon and replaced the previous rule provision for the assignment of non-specific two letter call signs to Extra class licensees who had been licensed more than 25 years.

Numerous Public Bulletins were released by the FCC at various times to publicize these Rules and to further explain the Commission's procedures for assigning Amateur radio station call signs.

On February 23, 1978, the FCC amended the amateur station call sign assignment system as follows:

- a) call signs will be assigned on a systematic basis;
- b) no requests will be granted for a specific call sign;
- c) the FCC will issue public announcements detailing any changes to these procedures.

On March 30, 1978, the Personal Radio Division issued a News Release which notified the public that all prior Commission Amateur call sign policies and procedures had been canceled and replaced. Secondary, RACES, repeater, Club and military recreation station call signs

were abolished.

Various categories of call signs were established which made up the so-called "Group Call Sign System." It remains in effect today. Licensees were permitted to request non-specific call signs from particular categories depending upon the class of their operator licenses. (Group A went to the Extra class, Group B to Advanced, Group C to Technician/General and Group D, Novice.) The higher the class, the shorter (and supposedly the more desirable) the station call sign. The News Release strongly stated that requests for specific call signs would no longer be honored, period!

That's what the call sign Rules said...

But that is not what really had happened over the years. FCC employees were receiving preferential call signs other than through the "systematic assignment" system that had been in effect for some thirty years. On December 2, 1977, letters were sent to 239 Commission employees who were also licensed ham operators.

The letter stated that the FCC had received information that some employees "...had obtained their Amateur station call signs inconsistent with the Commission's Rules." Thirty-six FCC employees had received call signs which were contrary to the "systematic" assignment provision in the Rules. Among them were Arthur H. Feller who received W4ART and Frank L. Rose who got W3RO. Even the Bureau Chief, Charles A. Higginbotham received a call sign containing his initials, W3CAH ...which he subsequently submitted for cancellation.

To obtain a "special" call sign, FCC employees simply attached a note to a Form 610 application indicating their call sign choice or type of call sign wanted. The requests were directed to and were acted upon by one Richard C. Zeigler, a ten year supervisor at the FCC's Gettysburg, Pennsylvania Amateur Section.

Zeigler felt that Commission employees who held Amateur tickets deserved good ham calls and he tried to accommodate them. He received no consideration of any kind in connection with making these call sign assignments. The practice was apparently a long, long standing one which predated Zeigler's employment with the Commission.

Zeigler also did call sign "favors" for persons who had never been employed by the Commission and who were not acquaintances of employees. His action on the requests depended upon how the persons impressed him. According to FCC records, Prose Walker (W4BW), then the Chief of the FCC's Amateur and Citizen's Division also on occasion instructed Zeigler to issue or "flag-and-hold" specific call signs for prominent Amateurs or organizations.

A station on board an aircraft carrier requested and received WA4USN. The Capitol Hill Amateur Radio Club

located in the U.S. Senate got W3USS; the Department of State ARC got W3DOS. W1USA and W2USA went to military stations: the United Nations ARC got K2UN ...and so forth.

Even former FCC Commissioners got into the act and helped the Boy Scouts of America obtain K2BSA. Testimony revealed that one FCC bureau chief had an Extra class ham ticket issued to himself in 1969 without examination even though his license had expired some thirty years prior. He granted himself a waiver. And an FCC Chairman directed the Amateur Division to issue several upgrades without examination to deserving amateurs. There was even an instance where an FCC amateur applications processor at Gettysburg issued a ticket to himself without examination. (It too was later canceled.)

Although not according to the rules, providing call sign "favors" ...and to a lesser extent, awarding upgrades or new licenses without examination became more or less an accepted practice. Various FCC people were simply trying to accommodate people that they felt were deserving.

Zeigler was employed at the FCC/Gettysburg when all of this was going on and he began doing "favors" on his own. He apparently felt it was an acceptable practice since policy and procedure "deviations" by higher-ups were widespread. As a general rule, no money or consideration was given. But the investigation record does show that in some cases he received small gifts and small amounts of cash (\$10 or \$20.)

From the frying pan into the fire!

Then it got messy. Real messy! An Indianapolis, Indiana handicapped Amateur by the name of Robert W. Kirkham who Zeigler had helped (by upgrading his license to Advanced without examination) requested special call sign assignments for five persons. And there is reason to believe that some of these people may have given or donated money to Kirkham to receive a call sign. All of a sudden the line was crossed! And "favors" more closely resembled selling licenses and call signs.

On June 14, 1976, the FBI entered the picture and determined that Kirkham was arranging -- in some instances for money, goods or services -- for the improper issuance of Amateur licenses through Zeigler. None of the proceeds were sent to Zeigler, however.

Ultimately three or four dozen Amateurs received "favors" from Zeigler through Kirkham who received money (up to \$200) or other things of value for his help. Zeigler explained to Kirkham the application procedure to use on requests for "favors" which he personally hand processed. Sometimes Zeigler destroyed the applications after he had changed a call sign ...or upgraded a license.

Two weeks later, the Cincinnati office of the FBI received word that Zeigler was accepting \$100 payments in return for issuing preferred call signs to four Columbus, Ohio licensees who did not qualify for them. One of them was John R. Sheller, KN8Z who had asked that a good call sign be reserved for him under the upcoming "1x2" call sign system. He admits today that sending the \$100 payment was a stupid thing to do ...especially when others got (and kept) their call sign by simply asking for it.

We asked Sheller - an avid DXer and contesteer - about his side of the story. He wrote us back a lengthy letter. "From the time I became an amateur radio operator in 1967, I was aware that many amateurs held call signs of special significance. ...many amateurs had call signs with their initials, or certain combinations such as CW, YL, ...DX. It was during this time that I set a goal for myself of getting one of these more desirable call signs," he said. Sheller contacted another amateur who had a very desirable call sign and learned about "...a contact in Gettysburg, who could help people with call sign problems." Sheller claims he later found out that this individual was -- or had been -- an FCC enforcement attorney.

He called Zeigler at his private phone number who wanted to know who referred him. After his identification was established, Sheller was told to send the appropriate \$20 fee to reserve a preferential call sign to a Gettysburg post office box. He included an unsolicited \$100 bill along with a note that said he "...hoped he and his wife would have a nice dinner with my compliments."

After about a month's time, "I received a letter from Zeigler stating that he couldn't reserve a call sign for me, but had in fact issued me K8RZ, which if I recall correctly, was my third or fourth choice. He also advised me not to use K8RZ until January 1977 and thanked me for the generosity that I had enclosed."

"About a week later (early June 1976) I shared my apparent coup concerning call signs with some of my closest friends [and they] showed an interest in having call signs reserved as I had done. I wrote a letter to Mr. Zeigler, thanking him for his fast service and told him that I had three discreet friends who would like his help. Within a week he responded that 'yes, he would be more than glad to help provided that the same type of generosity was shown him.' Money was now being solicited!

"I immediately shared Zeigler's letter with my three friends, who did the same as I, and sent their packages off to him. The following three months were uneventful, except my three friends received their call signs, with the same caveat about not using them until January 1977."

In March 1977, Zeigler was indicted for accepting money from the four central Ohio amateurs. He resigned his FCC position and was prosecuted in the U.S. District

Court for the Middle District of Pennsylvania at Lewisburg. On June 6, 1977, Zeigler was convicted on two of the three counts and sent to jail.

The hundreds of amateurs and organizations who made no misrepresentations or payments were allowed to retain their call signs provided they were otherwise qualified for them. While they may have exercised poor judgement, they did not violate any Commission Rules and no enforcement action would be taken to revoke their ham tickets. The FCC did go after persons, however, who intentionally obtained or sought to obtain new or upgraded Amateur licenses without examination.

The FCC took a much harder position on its own employees. The Commission ruled its employees must avoid even the slightest appearance of impropriety. They were not permitted to retain call signs that were not properly assigned and reverted back to those that were systematically assigned.

The Vanity Call Sign System

John R. Sheller, Frank Rose and Arthur H. Feller all applied in June 1996 under Gate one of the Vanity Call Sign System for the call signs that Zeigler had once assigned them: K8RZ, W3RO and W4ART. They were assigned, but later set aside under an FCC Rule that permits reversal within a 30 day period of any action taken under delegated authority.

Arthur Feller maintains that he did indeed legitimately hold W4ART for almost six years and that "...the FCC's action in withdrawing my call sign is clearly unsupported by current FCC Rules and Regulations." Feller wants to know "Why is the current Commission singling out former FCC employees for special, unequal, and harsh treatment?" and asks for a public apology. He also is upset that the FCC publicly released a copy of the letter notifying him that W4ART was being withdrawn before he had a chance to answer it.

Sheller has canceled his request under Gate One and plans to try again under Gate Two. He wrote us that "In July 1977, I voluntarily turned in K8RZ to the FCC. It was neither revoked or suspended." After surrendering K8RZ, he was assigned W8MZ and it was this call sign which was later revoked. "I did not, and a federal jury believed that I did not, bribe anyone to get the call K8RZ. I used poor judgement in trying to reserve a call sign I was not entitled to at the time."

The foregoing story was put together with the aid of government documentation covering an *"Inquiry into Alleged Improper Issuance of Licenses and Call Signs in the Amateur Radio Service"* (Docket 21418, adopted Oct. 25, 1979) ...and various letters provided by and phone calls with both Arthur Feller and John R. Sheller.